

## ABSTRACT

BACKGROUND: ORIF with plate osteosynthesis has been accepted as the standard technique for fixation of humeral shaft fractures. Certain disadvantages with conventional humeral plating are extensive incision, increased risk of infection, disruption of periosteal blood supply & violation of the fracture site hematoma thereby leading to nonunion. Similarly, Intramedullary nailing has limited use because of post operative shoulder dysfunction due to **rotator cuff injury and impingement** caused by prominent nail end. MIPO violates these risks.

AIM: To assess the functional outcome of comminuted fracture shaft of humerus operated by minimally invasive anterior plate osteosynthesis

MATERIALS & METHODS: 15 Patients with comminuted shaft of humerus fracture attending Department of Orthopaedics in GOVT RAJAJI HOSPITAL & MADURAI MEDICAL COLLEGE from Nov 2016 to Oct 2018.

RESULTS: 15 patients with mean age of 42.7 years diagnosed to have comminuted diaphyseal humerus fracture were included in this study. Out of 15, 3 cases had reported varus angulation >10 degree, but without functional impairment. 1 case reported posterior angulation. The average union time is 11.9 weeks, ranging from 8-20 weeks. The average CONSTANT MURLEY SCORE for shoulder & MEPS score for elbow was 87 & 97.3 . 2 cases of radial nerve palsy were reported. No incidence of infection & non union.

CONCLUSION: MIPO offers excellent functional outcome for comminuted shaft of humerus with **better union rate compared to ORIF**. There is **decreased postoperative morbidity and infection rate** with early return to function. **The operating time and blood loss are less** compared to ORIF.